HELEN S. GILBERT
Attorney at Law

May 1, 2007

Via: Hand Delivery
Office of Chief Clerk
ATTN: Agenda Docket Clerk – MC 105
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, Texas 78711-3087

RE: Application for Domestic Septage Registration No. 710896; TCEQ Docket No. 2007-0395-SLG

Dear Agenda Docket Clerk:

Attached for filing in the above-referenced matter, please find an original and eleven (11) copies of "Citizens Opposed to Registration Dumps' Reply to the Executive Director's Response to Motions to Overturn." Copies have been provided to the parties on the service list.

Thank you for your attention to this matter.

Sincerely,

Helen S. Gilbert

Helen S. Gilbert

Enclosure
cc: Ms. Renee Lane
Service List

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TCEQ DOCKET NOS. 2007-0395-SLG

APPLICATION FOR DOMESTIC	§	**BEFORE THE**	
	§		
SEPTAGE REGISTRATION	§	**TEXAS COMMISSION ON**	
	§		
NO. 710896	§	**ENVIRONMENTAL QUALITY**	

CITIZENS OPPOSED TO REGISTRATION DUMPS' REPLY TO THE EXECUTIVE DIRECTOR'S RESPONSE TO MOTIONS TO OVERTURN

TO THE HONORABLE COMMISSION:

NOW COME the Citizens Opposed to Registration Dumps ("CORD" or "Protestants") and file this Reply to the Executive Director's Response to Motions to Overturn domestic septage Registration No. 710896, and would respectfully show the following:

I.
Application Rate Flaw is More Than Typographical

In the Texas Commission on Environmental Quality's ("TCEQ" or "commission") Executive Director's Response to CORD and others' Motions to Overturn, he recommends that the commission grant the Motions to Overturn, but only to fix a typographical error with the application rate. Presumably after remand, the Executive Director would correct the typographical error and reissue the registration. The Executive Director is correct that there is an error in the application rate, but the mistake is substantive and not merely a matter of changing the figure 68,077 gallons/acre/year to 63,077 gallons/acre/year.

The 63,077 gallons/acre/year application rate which the Executive Director now maintains is correct, is still wrong for several reasons. First, 63,077 is based on the soil analysis performed by Aqua Tech Laboratories which contains a result of "2*" for

Extractable Nitrate. *See* Exhibit A.[1] Applicant only considered the "2*" Extractable Nitrate value in his Appendix A calculation but completely ignored the presence of 156 parts per million (ppm) Ammonium Nitrogen. That is, Applicant is not accounting for *all* of the plant available nitrogen (NO_3 and NH_4). Normally, if NH_4 (Ammonium) is reported on a soil analysis form, it is taken into account because it is plant available and it is a relatively short lived form of nitrogen - it readily nitrifies to the nitrate (NO_3) form. In other words, however much NH_4 (Ammonium) is available, you can expect that much NO_3 to become available in the near future. But the Applicant ignored this data in his Appendix A calculation.

Had the Applicant considered all forms of Nitrogen, he would have arrived at 1,246 lb/ac N (NH_4 + NO_3) available in the soil in Appendix A, instead of the later revised 16 lb/ac N. The correct figure of 1,246 lb/ac N does not support an application rate of 63,077 gallons/acre/year.

As CORD stated in its Motion to Overturn, the Applicant submitted at least six (6) different versions of the Appendix A application rate. *See* CORD Motion to Overturn, Exhibit C. How does the Executive Director have any confidence that the last rate proposed (63,077 gallons/acre/year) is correct, if no agronomist reviewed it – not even initially? The Executive Director acknowledges the error but refuses to review the application rate on the technicality that the rules do not require it. Executive Director Response, p. 2. It is not only astounding that the Executive Director would refuse to review an application rate when there are known problems, but particularly so when review of application rates for septage, sludge and irrigated municipal effluent are

[1] Note, for some unexplained reason, there are 2 versions of page 2 of the Aqua Tech analysis. Although the contents of both are identical and they are both signed, they are dated 8/15/2005 and 8/19/2005, respectively.

routinely reviewed as a matter of practice although not strictly required by chapters 309 and 312 of the commission rules.

Even the TCEQ intern who calculated the application rate erroneously, recommended that the Applicant "check with a soil agent. . .," however, it does not appear that the Applicant did so or that the Executive Director took his own advice. A Certified Nutrient Management Specialist would not have seen 156 ppm Ammonium Nitrogen and ignored it, knowing it quickly nitrifies into nitrate form. The Executive Director has the legal authority to require that new soil samples be taken, a new application rate be calculated and a new application be filed as he has done so before when data was questionable. 30 TEX. ADMIN. CODE §218.19. *See* Synagro authorizations.

The Aqua Tech lab analysis which is the foundation for the 63,077 gallons/acre/year application rate for which the Executive Director now supports raises other questions as well. These may be flaws or, more seriously, misrepresentations. First, Aqua Tech is not a lab which typically analyzes agricultural-related sites, they typically analyze effluent from treatment plants. Second, the analysis lists both Ammonia Nitrogen (NH_3) and Ammoni***um*** Nitrogen (NH_4). Ammonia Nitrogen is a gaseous form of N when in the soil. Due to the required processes for sample preparation (which requires samples to be air dried, causing evaporation), it is impossible to find ammonia in a soil sample (alternatively, ammonium is aqueous and will bind to soils), so it makes no sense that it should be listed in the lab analysis at all. Also, for some unknown reason, the lab lists identical values for Ammonia Nitrogen and Ammonium Nitrogen (*i.e.*, 156 ppm). Third, the analysis indicates that the Extractable Nitrate amount

"2*" was not evaluated at Aqua Tech, but contracted out to another lab. Yet this sub-contracted lab analysis does not exist in the application materials or public records, begging the question of whether it even exists at all. Misrepresentation of data is another reason to require the Applicant to refile his application with fresh soil samples, as the Executive Director has required previously.

With respect to the age of the soils samples, the Executive Director states that the samples were submitted within a year of application filing. Executive Director Response, p. 2. While true, it is now well over a year (21 months) since sampling and based on the multiple errors and omissions noted, it appears that a new application with new application rate must be generated. These must be accompanied by new soil samples according to the Executive Director's past practice and Natural Resources Conservation Service's Conservation Practice Standard, Code 590 which requires that soil samples be based on current year's soils data.

As stated in CORD's Motion to Overturn, Applicant provided a second soil analysis performed by a different lab, Texas Cooperative Extension Service, almost a year after the first Aqua Tech analysis (May 2006). However, the Extension Service analysis does not support any versions of Appendix A, even the last ones. It is unclear why Applicant would go to the trouble of taking additional soil samples and having them analyzed, just to ignore the results.

II.
Thin Erosive Soils Should Disqualify Site

The thin and highly erodible soils present another significant problem with this site. Page 3 of the Technical Report to the application relating to soil data states that there is only 0-4 and 0-7 inches of Crockett Loam existing on-site. *See* Exhibit B. The

TCEQ form specifically requires the Applicant to provide a rationale for utilizing soils thinner than two feet, which would have required a site specific investigation and results. However, here again, the application and subsequent submittals completely lack any explanation of thin soils. Certainly there is no evidence that Applicant performed a site specific investigation.

Even the briefest review of the NRCS official series description (OSD) for the Crockett soil series shows a medium to high runoff for slopes of 1-3% and 3-5% -- both of which are present on the Ortega site. *See* Exhibit B from CORD's Motion to Overturn, showing runoff to neighboring property. Further, according to the NRCS, the Crockett series at this site are listed as "potentially highly erodible land" or "PHEL." *See* Exhibit C. Crocket series with a 2-5% slope (present at this site) are listed as eroded which means there is a high potential for the occurrence of erosional features at the site.

Thin surface soils that are known to be erosive is reason alone for this site to be disqualified for waste application. Because no required investigation was performed or explanation provided, it is unclear whether this problem might have been addressed through special conditions. At the very least, thin erosive soils should have triggered an agronomy review and site visit by a competent agronomist.

The flaws, omissions or misrepresentations in the sampling, analysis and calculations are more than typographical, they indicate significant fundamental problems with this application – which the Executive Director still refuses to scrutinize on the same level as most other septage registrations. Without a proper review, the commission has no assurance that this site will be protective of human health and the environment.

III.
Office of Public Interest Counsel is Correct

CORD agrees with the Office of Public Interest Counsel's assessment that there are serious questions about the accuracy of the registration and that accurate calculations are critical to environmental protection. OPIC Response, p. 5. Further, OPIC is correct that to properly analyze the accuracy of the information, the Executive Director should reexamine *all aspects* of the authorization. OPIC Response, p. 5. Such reexamination will start with the realization that: the Aqua Tech lab analysis cannot support the application rate; new samples must be taken; new soil data must be input into a new calculation deriving a new application rate; an agronomy review must be performed by a competent nutrient management specialist; thin and highly erosive soils must be investigated and either addressed through special registration provisions or the site should be disqualified altogether. Finally, this completely new information should be submitted in a new application for individual permit which is subject to a meaningful public participation process.

IV.
Petition for Chapter 311 Rulemaking

As a matter of policy, it is counter-intuitive that minimally treated septage should be authorized by registration while more highly treated waste, like Class B sludge, is permitted and subject to the contested case process. As is clear in Mr. Ortega's case and others like his (*see* TCEQ Docket Nos. 2005-0925-SLG and 2005-0936-SLG; Application by Austin Lin Brickey for Domestic Septage Registration Nos. 710890 and

710891),[2] the registration process simply does not afford a meaningful level of scrutiny for these sites. More importantly, the current process provides no assurance that sensitive and unique water bodies will be protected. Lake Fork and Lake Tawakoni Reservoirs in the Sabine River Basin are such water bodies. Not only do these water bodies provide a public drinking water supply to Dallas and other cities, but Lake Fork is known for its champion bass fishing which brings vital tourism revenue to Hunt, Wood and Raines counties. In the absence of a process to adequately protect these important resources and maintain their uses, the commission must promulgate new rules.

Accordingly, CORD requests that the commission also consider this Reply as its petition for rulemaking under chapter 311 of the Texas Water Code relating to watershed protection. Promulgation of new subchapter I in chapter 311 is supported by the commission's legal authority in sections 5.103, 5.105, and 5.120 of the Texas Water Code. The commission has previously promulgated "watershed protection rules" when petitioned by concerned local entities in the Ft. Worth area (*see* subchapter G) and most recently added subchapter H as a result of quarry legislation in the last legislative session. The scope of the new rule would be limited to only the Lake Fork and Lake Tawakoni Reservoirs and the watersheds that drain into them. Further, the new rule would only prohibit the land application of septage and not apply to disposal or land application of sludge or treated domestic effluent. These additional measures are necessary to adequately protect human health and the environment in the Lake Fork and Lake Tawakoni watershed.

[2]The TCEQ granted protestants' Motions to Overturn in this 2005 septage application case for similar reasons that the application was fundamentally flawed and no measures could adequately address special site characteristics to protect the environment.

V.
Conclusion

WHEREFORE, PREMISES CONSIDERED, for the foregoing reasons and those stated in CORD's Motion to Overturn and the numerous individual Motions to Overturn, CORD requests that the commission grant its Motion and overturn Registration No. 710896. In the alternative, CORD requests that the commission overturn the registration, and should Applicant pursue an authorization further, the commission should require that Applicant submit new soil samples in accordance with the rules, recalculate the application rate, file a new application for individual permit and refer it to the State Office of Administrative Hearings for a full evidentiary hearing on the merits.

Respectfully submitted,

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By: Helen S. Gilbert
Helen S. Gilbert
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ATTORNEY FOR CORD

CERTIFICATE OF SERVICE

I certify that a true copy of Citizens Opposed to Registration Dumps' Reply to the Executive Director's Response to Motions to Overturn was served on the following parties by hand delivery, facsimile or regular mail on this 1st day of May 2007:

FOR APPLICANT:
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By: Helen S. Gilbert
Helen S. Gilbert

EXHIBIT A

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Aqua-Tech LABORATORIES, INC.

Austin Laboratory:
(512) 301-9559
E-mail:
aquatech@txcyber.com

Gustavo Otega
P.O. Box 1026
Quinlan, TX 75474

8/19/2005

Weathers Soil- 0-6 inches

Sample ID# AN13405 **Date Collected** 7/5/2005 **Time Collected** 0:00 **Collected By** CLT **Type** Comp
Field Data: **pH Std units** **Cl Residual mg/L** **DO mg/L** **Flow mgd**

Weathers Soil- 0-6 inches

Analysis	MDL	Result	Units	Analyst	Start Date	Start Time	Method #
Ammonia Nitrogen	0.001	0.0156	%	BKB	8/1/2005	10:30	EPA 350.2
Ammonia Nitrogen	10	156	mg/kg	BKB	8/1/2005	10:30	EPA 350.2
Ammonium-Nitrogen		156	mg/kg	BKB	8/1/2005	10:30	SM184500NH3E
Arsenic by ICP	0.511	3.93	mg/kg	MRG	7/14/2005	15:15	SW846 6010B
Cadmium by ICP	0.051	1.07	mg/kg	MRG	7/14/2005	15:15	SW846 6010B
Chromium by ICP	0.051	28.0	mg/kg	MRG	7/14/2005	15:15	SW846 6010B
Conductivity on 2:1 Extract		141 *	umhos/cm	ATM	7/13/2005	8:00	TAMU
Copper by ICP	0.256	3.28	mg/kg	MRG	7/14/2005	15:15	SW846 6010B
Extractable Calcium		3989	mg/kg	ATM	7/13/2005	8:00	TAMU
Extractable Magnesium		707	mg/kg	ATM	7/13/2005	8:00	TAMU
Extractable Nitrate		2 *	mg/kg	ATM	7/13/2005	8:00	TAMU
Extractable Phosphorus		4 *	mg/kg	ATM	7/13/2005	8:00	TAMU
Extractable Potassium		145 *	mg/kg	ATM	7/13/2005	8:00	TAMU
Extractable Sodium		458	mg/kg	ATM	7/13/2005	8:00	TAMU
Lead by ICP	0.256	11.7	mg/kg	MRG	7/14/2005	15:15	SW846 6010B
Mercury	0.03	0.03	mg/kg	MRG	7/28/2005	10:51	SW846 #7471A
Mercury Solid Digest 1	N/A	0.6021g/30	mLs	JH	7/15/2005	13:35	SW846 #7471A
Mercury Solid Digest 2	N/A	0.6017g/30	mLs	JH	7/15/2005	13:35	SW846 #7471A
Mercury Solid Digest 3	N/A	0.6166g/30	mLs	JH	7/15/2005	13:35	SW846 #7471A
Metals Solid Digest w/HCl	N/A	1.0782g/50	mLs	JH	7/11/2005	8:25	SW846 #3050B
Molybdenum by ICP	0.051	<0.051	mg/kg	MRG	7/14/2005	15:15	SW846 6010B
Nickel by ICP	0.256	7.00	mg/kg	MRG	7/14/2005	15:15	SW846 6010B
pH on 2:1 Soil Extract		5.6 *	std units	ATM	7/13/2005	8:00	TAMU
Selenium by ICP	0.511	<0.511	mg/kg	MRG	7/14/2005	15:15	SW846 6010B
TKN/P Digestion Code		1.17g/50mL	mL	AB	7/25/2005	14:00	EPA 351.2/36
Total Kjeldahl Nitrogen	0.001	0.369	%	BKB	7/25/2005	14:00	EPA 351.3
Total Kjeldahl Nitrogen	10	3690	mg/kg	BKB	7/25/2005	14:00	EPA 351.3
Total Solids	0.1	91.8	g/100 g	HJ	7/14/2005	16:52	SM 20 2540G
Zinc by ICP	0.256	29.2	mg/kg	MRG	7/14/2005	15:15	SW846 6010B

Weathers Soil- 6-24 inches

Sample ID# AN13406 Date Collected 7/5/2005 Time Collected 0:00 Collected By CLT Type Comp

Field Data: pH Std units Cl Residual mg/L DO mg/L Flow mgd

Weathers Soil- 6-24 inches

Analysis	MDL	Result	Units	Analyst	Start Date	Start Time	Method #
Ammonia Nitrogen	0.001	**0.0153**	%	BKB	8/1/2005	10:30	EPA 350.2
Ammonia Nitrogen	10	**153**	mg/kg	BKB	8/1/2005	10:30	EPA 350.2
Ammonium-Nitrogen		**153**	mg/kg	BKB	8/1/2005	10:30	SM184500NH3E
Extractable Nitrate		**2** *	mg/kg	ATM	7/13/2005	8:00	TAMU
Extractable Phosphorus		**12** *	mg/kg	ATM	7/13/2005	8:00	TAMU
pH on 2:1 Soil Extract		**6.0** *	std units	ATM	7/13/2005	8:00	TAMU
TKN/P Digestion Code		**1.07g/50mL**	mL	AB	7/25/2005	14:00	EPA 351.2/36
Total Kjeldahl Nitrogen	10	**2760**	mg/kg	BKB	7/25/2005	14:00	EPA 351.3
Total Kjeldahl Nitrogen	0.001	**0.276**	%	BKB	7/25/2005	14:00	EPA 351.3
Total Solids	0.1	**86.6**	g/100 g	HJ	7/14/2005	16:52	SM 20 2540G

* Please note this analysis was not performed in-house but by a subcontracting facility.

John Brien (Vice President)

Weathers Soil- 6-24 inches

Sample ID# AN13406 **Date Collected** 7/5/2005 **Time Collected** 0:00 **Collected By** CLT **Type** Comp

Field Data: **pH Std units** **Cl Residual mg/L** **DO mg/L** **Flow mgd**

Weathers Soil- 6-24 inches

Analysis	MDL	Result	Units	Analyst	Start Date	Start Time	Method #
Ammonia Nitrogen	0.001	**0.0153**	%	BKB	8/1/2005	10:30	EPA 350.2
Ammonia Nitrogen	10	**153**	mg/kg	BKB	8/1/2005	10:30	EPA 350.2
Ammonium-Nitrogen		**153**	mg/kg	BKB	8/1/2005	10:30	SM184500NH3E
Extractable Nitrate		**2** *	mg/kg	ATM	7/13/2005	8:00	TAMU
Extractable Phosphorus		**12** *	mg/kg	ATM	7/13/2005	8:00	TAMU
pH on 2:1 Soil Extract		**6.0** *	std units	ATM	7/13/2005	8:00	TAMU
TKN/P Digestion Code		**1.07g/50mL**	mL	AB	7/25/2005	14:00	EPA 351.2/36
Total Kjeldahl Nitrogen	10	**2760**	mg/kg	BKB	7/25/2005	14:00	EPA 351.3
Total Kjeldahl Nitrogen	0.001	**0.276**	%	BKB	7/25/2005	14:00	EPA 351.3
Total Solids	0.1	**86.6**	g/100 g	HJ	7/14/2005	16:52	SM 20 2540G

* Please note this analysis was not performed in-house but by a subcontracting facility.

John Brien (Vice President)

EXHIBIT B

6. SOIL DATA

Use USDA Natural Resources Conservation Service (NRCS) soil descriptions to complete this form. Refer to Physical and Chemical Properties Table and Engineering Tables in the appropriate county soil survey.

Map Symbol	Soil Type	Maximum slope	pH	Depth to Bedrock* (Inches)	Depth to Groundwater (Feet)	Permeability (Inch/hour)	* Soil Depth (Inches)
6	Crockett Loam	1-3 %	5.6	>60	>6.0	0.6-2.0	0-7
7	Crockett Loam	2-5 %	5.6	>60	>6.0	0.6-2.0	0-4

* If depth to bedrock is not specified in soil survey, use the maximum depth shown. If soil depth is less than two feet, please provide the rationale for utilizing soils thinner than two feet. The rationale should include site specific investigation results.

Soil Data Table Completed By: Gustavo Ortega

Data Source(s): USDA NRCS Soil Survey for Hunt Co. Date: 1/20/16

List Soils with Restrictive Characteristics (refer to the list below):

N/A

Restrictive Soil Characteristics:

Soils with at least an "occasional flooding" classification in the soil legend may flood between 5 and 50 times in 100 years.

Seasonal groundwater or groundwater table shall be below the treatment zone at least:
- 3 feet for soil with permeability of < 2 in/hr;
- 4 feet for soil with permeability of 2 - 6 in/hr;
- For soil permeabilities of > 6 in/hr, the TCEQ will review each case individually.

EXHIBIT C

USDA United States Department of Agriculture

Natural Resources Conservation Service

Soils Report

CURRENT LIST

HEL Classification

Soil Survey: Hunt County, Texas
Survey Status: -
Correlation Date: 01/01/1978
Distribution Date: 12/19/2005

Map Symbol	Soil Name	Rating
1	Axtell loam, 2 to 5 percent slopes	Potentially highly erodible land
2	Axtell loam, 5 to 12 percent slopes	Highly erodible land
3	Bazette clay loam, 5 to 12 percent slopes	Highly erodible land
4	Branyon clay, 0 to 1 percent slopes	Not highly erodible land
5	Burleson clay, 0 to 1 percent slopes	Not highly erodible land
6	Crockett loam, 1 to 3 percent slopes	Potentially highly erodible land
7	Crockett loam, 2 to 5 percent slopes, eroded	Potentially highly erodible land
8	Crockett-Urban land complex, 1 to 3 percent slopes	Potentially highly erodible land
9	Fairlie and Dalco soils, 1 to 4 percent slopes	Potentially highly erodible land
10	Ferris clay, 5 to 12 percent slopes, eroded	Highly erodible land
11	Ferris-Heiden complex, 2 to 5 percent slopes, eroded	Potentially highly erodible land
12	Gasil loamy fine sand, 8 to 12 percent slopes	Highly erodible land
13	Heiden clay, 2 to 5 percent slopes	Potentially highly erodible land
14	Heiden clay, 5 to 8 percent slopes	Highly erodible land
15	Heiden-Urban land complex, 3 to 6 percent slopes	Potentially highly erodible land
16	Hopco silt loam, frequently flooded	Not highly erodible land
17	Houston Black clay, 1 to 3 percent slopes	Potentially highly erodible land
18	Kaufman clay, occasionally flooded	Not highly erodible land
19	Kaufman clay, frequently flooded	Not highly erodible land
20	Lamar loam, 5 to 12 percent slopes	Highly erodible land
21	Leson clay, 1 to 3 percent	Potentially highly erodible land

	slopes	
22	Leson clay, 3 to 5 percent slopes	Potentially highly erodible land
23	Leson-Urban land complex, 1 to 3 percent slopes	Potentially highly erodible land
24	Lufkin-Rader complex	Not highly erodible land
25	Nahatche loam, frequently flooded	Not highly erodible land
26	Pits	Potentially highly erodible land
27	Rader fine sandy loam, 1 to 3 percent slopes	Potentially highly erodible land
28	Stephen silty clay, 2 to 5 percent slopes	Highly erodible land
29	Tinn clay, occasionally flooded	Not highly erodible land
30	Tinn clay, frequently flooded	Not highly erodible land
31	Wilson silt loam, 0 to 1 percent slopes	Not highly erodible land
32	Wilson-Urban land complex, 0 to 1 percent slopes	Potentially highly erodible land